This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

llan et al

Serial No.

10/764,418

Group Art Unit: Not yet known

Filed:

January 23, 2004

Examiner: Not yet determined

Title:

PROCESS FOR DETECTING THE PRESENCE OR QUANTITY OF ENZYMATIC

ACTIVITY IN A SAMPLE

TRANSMITTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Information Disclosure Statement which is being filed in accordance with 37 C.F.R. §§ 1.56 and 1.97-1.98. The items listed on Form PTO-1449, a copy of which is enclosed, may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

PRIORITY FIRST CLASS MAIL CERTIFICATE

I hereby certify that this paper and any attachments herein are being deposited on the date below with the United States Postal Service as Priority First Class mail to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Ronald C. Fedus

Reg. No. 32,567

Date

1. []	1449 t	ach of the following items listed on the enclosed copy of Form PTO- that is not in the English language, an English language translation of em or a portion thereof or a concise explanation of the relevance of that is enclosed:
2. []	that is	ach of the following items listed on the enclosed copy of form PTO-1449 not in the English language, a concise explanation of the relevance of em is incorporated in the specification of the above-identified ation.
3.[]	enclos or sub [] Co	opy of the items on the enclosed copy of Form PTO-1449 that is not sed with this Information Disclosure Statement was previously cited by emitted to the Patent and Trademark Office in the prior [] Divisional or ntinuation-In-Part application under 37 C.F.R. §1.60, U.S. Serial No, filed
4. []	No fee Stater	e is due under 37 C.F.R. §1.17(p) for this Information Disclosure ment since it is being filed in compliance with:
	[]	37 C.F.R. §1.97(b)(1), within three months of the filing date of the above-identified application.
	[]	37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in ∍1.491 in an international application.
	[]	37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits.
5. []	Stater the pe final a action	e is due under 37 C.F.R. §1.17(p) for this Information Disclosure ment since it is being filed in compliance with 37 C.F.R. §1.97(c), after eriod specified in paragraph 4 above but before the mailing date of a ction or a Notice of Allowance (where there has been no prior final), and is accompanied by one of the certifications pursuant to 37 C.F.R. (e) set forth in paragraph 9 below.
6. [x]	Stater the pe	is due under 37 C.F.R. §1.17(p) for this Information Disclosure ment since it is being filed in compliance with 37 C.F.R. §1.97(c), after priod specified in paragraph 4 above but before the mailing date of a ction or a notice of allowance (where there has been no prior final):
	[]	A check in the amount of \$180.00 is enclosed in payment of the fee.
En- 6	1(D11)	
ロロアーわ	1111111	

.

E112-61(D11)

- [x] Charge the fee to Deposit Account No. 05-1135, Order No. Enz-61(D11). A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- 7. [] A fee is due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:
 - a. one of the certification pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
 - b. the attached petition requesting consideration of this Information Disclosure Statement; and
 - c. the fee due under 37 C.F.R. §1.17(i)(1) which is paid as set forth in paragraph 10 below.
- 8. [] A fee is due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in compliance with:
 - a. [] 37 C.F.R. §1.313(b)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue;
 - b. [] 37 C.F.R. §1.313(b)(5), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue.
 - c. [] The fee due under 37 C.F.R §1.17(i)(1) is paid as set forth in paragraph 10 below.
- 9. [] I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
 - [] I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

- 10. [] A check in the amount of \$180.00 is enclosed in payment of the fee due under 37 C.F.R. §1.17(i)(1).
 - [X] Charge the fee under 37 C.F.R. §1.17(i)(1) to Deposit Account No. 05-1135. Order No. Enz-61(D11). A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
 - [x] The Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 05-1135. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

Dated: March 8, 2004

Ronald C. Fedus

Registration No. 32,567

Mailing Address:

ENZO LIFE SCIENCES, INC. c/o Enzo Biochem, Inc. 292 Madison Avenue, 9th Floor New York, New York 10022 Telephone: (212) 583-0100

WAR 1 0 2000 THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Ilan et al

Filed:

Serial No. 10/764,418

10/764,418) Group Art Unit: Not yet known

Title: PROCESS FOR DETECTING THE PRESENCE)

OR QUANTITY OF ENZYMATIC ACTIVITY

January 23, 2004

IN A SAMPLE

527 Madison Avenue, 9th Floor New York, New York 10022 March 8, 2004

Examiner: Not yet determined

FILED VIA EXPRESS MAIL

Mail Stop No-Fee Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§1.56 & 1.971.98

Dear Sirs:

Pursuant to the provisions of 37 C.F.R. §§1.971.98, and in full compliance with their duty of disclosure under 37 C.F.R. §1.56, Applicants, through their attorney, are bringing the following ninety-two (92) documents to the attention of the U.S. Patent and Trademark Office and the Examiner handling their above-identified application:

03/11/2004 SSANDARA 00000005 051135 10764418 01 FC:1806 180.00 DA

Filed: January 23, 2004

Page 11 [Information Disclosure Statement - March 8, 2004]

The fee under 37 C.F.R. §1.17(p) for filing this Information Disclosure Statement is \$180.00. The Patent and Trademark Office is hereby authorized to charge the amount of this fee (and any other fees in connection with this IDS) to Deposit Account No. 05-1135, or to credit any overpayment thereto.

Respectfully submitted,

Ronald C. Fedus

Registration No. 32,567

Natalie Bogdanos

Registration No. 51,480

Attorneys for Applicants

ENZO LIFE SCIENCES, INC. c/o Enzo Biochem, Inc. 527 Madison Avenue, 9th Floor New York, New York 10022 Tel. (212) 583-0100

Filed: January 23, 2004

Page 2 [Information Disclosure Statement - March 8, 2004]

PRIORITY FIRST CLASS MAIL CERTIFICATE

I hereby certify that this paper and any attachments herein are being deposited on the date below with the United States Postal Service as Priority First Class mail to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Ronald C. Fedus

Reg. No. 32,567

Filed: January 23, 2004

Page 3 [Information Disclosure Statement - March 8, 2004]

- 1. Ball, et al., "The use of tailed octamer primers for cycle sequencing," Nucl. Acids. Res. 26:5225-5227 (1998) [Exhibit 1];
- 2. Baranov, et al., "A new technique for the characterization of long-range tertiary contacts in large RNA molecules: insertion of a photolabel at a selected position in 16S rRNA within the Escherichia coli ribosome," Nucl. Acids Res. 25:2266-2273 (1997) [Exhibit 2];
- 3. Barany, et al., U.S. Patent No. 5,494,810, filed November 22, 1994 [Exhibit 3];
- 4. Bellhouse, et al., U.S. Patent No. 6,004,286, filed September 18, 1998 [Exhibit 4];
- 5. Bieniarz, et al., U.S. Patent No. 5,582,984, filed June 29, 1994 [Exhibit 5];
- 6. Bieniarz, et al., U.S. Patent No. 5,599,932, filed June 5, 1995 [Exhibit 6];
- 7. Bronstein, I.Y., U.S. Patent No. 4,978,614, filed July 20, 1989 [Exhibit 7];
- 8. Coassin, et al., U.S. Patent No. 5,462,854, filed April 19, 1993 [Exhibit 8];
- 9. Cros, et al, U.S. Patent No. 5,849,480, filed March 16, 1995 [Exhibit 9];
- 10. Dale, R.M., et al., "Direct covalent mercuration of nucleotides and polynucleotides," Biochemistry 14:2447-2457 (1975) [Exhibit 10];
- 11. Dale, R.M., et al., "The synthesis and enzymatic polymerization of nucleotide containing mercury: potential tools for nucleic acid sequencing and structural analysis," Proc. Natl. Acad. Sci. USA 70:2238-2242 (1973) [Exhibit 11];
- 12. Doan, T.L., et al., "Targeted cleavage of polynucleotides by complementary oligonucleotides covalently linked to iron-porphyrins," Biochemistry 25:6736-6739 (1986) [Exhibit 12];
- 13. Eglinton, G., et al., "A coupling of acetylenic compounds," Adv. Organic Synthesis 4:225-328 (1963) [Exhibit 13];
- 14. Engelhardt, et al., U.S. Patent No. 4,894,325, filed January 15, 1987 [Exhibit 14];

Filed: January 23, 2004

Page 4 [Information Disclosure Statement - March 8, 2004]

- 15. Engelhardt, et al., U.S. Patent No. 5,241,060, filed June 4, 1990 [Exhibit 15];
 - 16. Engelhardt, et al., U.S. Patent No. 5,288,609, filed October 30, 1992 [Exhibit 16];
 - 17. Engelhardt, et al., U.S. Patent No. 6,221,581, filed June 6, 1995 [Exhibit 17];
 - 18. Engelhardt, et al., U.S. Patent Application No. 08/182,621, filed January 13, 1994, abandoned in favor of continuing application 09/302,816, filed March 31, 1998, and divisional applications 09/302,818, filed February 3, 1998 and 09/302,817, filed April 16, 1999; specification published in related European Patent Application No. 0 667 393, published August 16, 1995 enclosed herein [Exhibit 18];
 - 19. Enzo Biochem, Catalog Nos. 42722, 4723, 4724, New York, NY [Exhibit 19];
 - 20. Ernst, et al., "Cyanine dye labeling reagents for sulfhydryl groups," <u>Cytometry 10</u>:3-10 (1989) [Exhibit 20];
 - 21. Forgione, et al., U.S. Patent No. 4,375,972, filed December 7, 1981 [Exhibit 21];
 - 22. Fuhrop, J.H., et al., Chapter 19 in "Porphyrins and Metalloporphyrins," ed. Smith, K.M., Elsevier Science, New York (1975) [Exhibit 22];
 - 23. Gelfand, et al., U.S. Patent No. 5,210,015, filed August 6, 1990 [Exhibit 23];
 - 24. Gemen, B., U.S. Patent No. 6,338,954, filed August 24, 2000 [Exhibit 24];
 - 25. Glazer, A., et al., U.S. Patent 5,646,264, filed January 23, 1995 [Exhibit 25];
 - 26. Haces, A., U.S. Patent No. 5,248,618, filed June 5, 1991 [Exhibit 26];
 - 27. Hamby, et al., U.S. Patent No. 5,730,849, filed September 30, 1996 [Exhibit 27];

Filed: January 23, 2004

Page 5 [Information Disclosure Statement - March 8, 2004]

- 28. Heller, et al., European Patent Application No. 0 070 685, published January 26, 1983 [Exhibit 28];
- 29. Hendrix, J.L., U.S. Patent No. 4,707,454, filed February 16, 1984 [Exhibit 29];
- 30. Hendrix, J.L., U.S. Patent No. 5,464,741, filed October 8, 1993 [Exhibit 30];
- 31. Higuchi, R.G., U.S. Patent No. 5,994,056, filed May 2, 1991 [Exhibit 31];
- 32. Hobbs Jr., et al., U.S. Patent No. 5,047,519, filed June 12, 1987 [Exhibit 32];
- 33. Impraim, et al., U.S. Patent No. 6,228,578, filed January 18, 1994 [Exhibit 33];
- 34. Kacien, et al., U.S. Patent No. 5,554,516, filed December 2, 1993 [Exhibit 34];
- 35. Kahn, et al., U.S. Patent No. 5,948,648, filed May 29, 1998 [Exhibit 35];
- 36. Kawase, et al., "Studies on nucleic acid interactions. I. Stabilities of miniduplexes (dG2A4XA4G2-dC2T4YT4C2) and self-complementary d(GGGAAXYTTCCC) containing deoxyinosine and other mismatched bases," Nucl. Acids. Res. 14:7727-7736 (1986) [Exhibit 36];
- 37. Kuhlmann, K.F., et al., "Synthesis, DNA-binding and biological activity of a double intercalating analog of ethidium bromide," <u>Nucl. Acids. Res. 5</u>:2629-2633 (1978) [Exhibit 37];
- 38. Kwok, et al., U.S. Patent No. 5,945,283, filed December 17, 1996 [Exhibit 38];
- 39. Larock, "Organomercurials in Organic Synthesis," <u>Tetrahedron 38</u>:1713-1754 (1982) [Exhibit 39];
- 40. Lee, L.G., et al., "DNA sequencing with dye-labeled terminators and T7 DNA polymerase: effect of dyes and dNTPs on incorporation of dye-terminators and probability analysis of termination fragments," Nucl. Acids Res. 20:2471-2488 (1992) [Exhibit 40];

Filed: January 23, 2004

Page 6 [Information Disclosure Statement - March 8, 2004]

- 41. Lee, et al., U.S. Patent No. 5,945,526, filed March 23, 1998 [Exhibit 41];
- 42. Lee, et al., International Patent Application No. WO 99/28500, filed November 27, 1998 [Exhibit 42];
- 43. Liu, H., et al., "PCR amplification using deoxyinosine to replace an entire codon and at ambiguous positions," <u>Biotechniques 16</u>:24-26 (1994) [Exhibit 43];
- 44. Liu, D., et al., "Stable human immunodeficiency virus type 1 (HIV-1) resistance in transformed CD4+ monocytic cells treated with multitargeting HIV-1 antisense sequences incorporated into U1 snRNA," <u>J. Virol 71</u>:4079-4085 (1997) [Exhibit 44];
- 45. Lizardi, et al., U.S. Patent No. 5,118,801, filed September 30, 1998 [Exhibit 45];
- 46. Loakes, D., et al., "5-Nitroindole as an universal base analogue," <u>Nucl. Acids</u> Res. 22:4039-4043 (1994) [Exhibit 46];
- 47. Loakes, D., "The applications of universal DNA base analogues," <u>Nucl. Acids</u> <u>Res. 29</u>:2437-2447 (2001) [Exhibit 47];
- 48. Malek, et al., U.S. Patent No. 5,130,238, filed August 23, 1989 [Exhibit 48];
- 49. Maulding, D.R., et al., "Chemiluminescence from Reactions of Electrophilic Oxamides with Hydrogen Peroxide and Fluorescent Compounds," <u>J. Org. Chem.33</u>:250-254 (1968) [Exhibit 49];
- 50. Moan, J., et al., "Porphyrin photosensitization and phototherapy," <u>Photochem. Photobio. 43</u>:681-690 (1986) [Exhibit 50];
- 51. Mujumdar, R.B., et al., "Cyanine dye labeling reagents containing isothiocyanate groups," Cytometry 10:11-19 (1989) [Exhibit 51];
- 52. Mujumdar, R.B., et al., "Cyanine dye labeling reagents: sulfoindocyanine succinimidyl esters," <u>Bioconjugate Chemistry 4</u>:105-111 (1993) [Exhibit 52];
- 53. Mullils, et al., U.S. Patent No. 4,683,202, filed October 25, 1985 [Exhibit 53];

Filed: January 23, 2004

Page 7 [Information Disclosure Statement - March 8, 2004]

- 54. Nazarenko, et al., U.S. Patent No. 5,866,336, filed January 3, 1997 [Exhibit 54];
- Nichols, et al., "A universal nucleoside for use at ambiguous sites in DNA primers," Nature 369:492-493 (1994) [Exhibit 55];
- 56. Okayama, H., et al., "High efficiency cloning of full length cDNA," Mol. Cell. Biol. 2:161 (1982) [Exhibit 56];
- 57. Rabbani, E., et al., U.S. Patent Application No. 09/104,067, filed June 24, 1998; specification published in related European Patent Application No. EP 0 971 039, published January 12, 2000 enclosed herein [Exhibit 57];
- 58. Rabbani, E., et al., U.S. Patent Application No. 09/896,897, filed June 30, 2001; specification published in related European Patent Application No. 1 275 737, published January 15, 2003 [Exhibit 58];
- 59. Rabbani, E., et al., U.S. Patent Application No. 10/096,076, filed March 12, 2002; specification published in related European Patent Application No. EP 1 344 835, published September 17, 2003 enclosed herein [Exhibit 59];
- 60. Randall, M.H., et al., U.S. Patent No. 6,114,350, filed April 19, 1999 [Exhibit 60];
- 61. Reddy, et al., U.S. Patent No. 6,110,630, filed June 18, 1998 [Exhibit 61];
- 62. Rieke, R.D., "The preparation of highly reactive metals and the development of novel organometallicreagents," <u>Aldrichimica Acta 33</u>:52-60 (2000) [Exhibit 62];
- 63. Roalent, C., U.S. Patent No. 6,001,573, filed October 23, 1997 [Exhibit 63];
- 64. Robins, M.J., et al., "Nucleic Acid Related Compounds. 39. Efficient Conversion of 5-lodo to 5-Alkynyl and Derived 5-Substituted Uracil Bases and Nucleosides," <u>J. Org. Chem. 48</u>:1854-1862 (1983) [Exhibit 64];
- 65. Schaap, et al., U.S. Patent No. 5,707,559, filed March 9, 1987 [Exhibit 65];
- 66. Schaap, et al., "Chemical and Enzymatic Triggering of 1,2-Dioxetanes. 1: Aryl Esterase-Catalyzed Chemiluminescence from a Naphthyl Acetate-Substituted 1,2-Dioxetane," <u>Tetrahedron Letters 28</u>:935-938 (1987) [Exhibit 66];

Stavrianopolous, et al Serial No.: 10/764,418 Filed: January 23, 2004

Page 8 [Information Disclosure Statement - March 8, 2004]

- 67. Schaap, A.P., et al., "Chemical and Enzymatic Triggering of 1,2-Dioxetanes. 3: Alkaline Phosphatase-Catalyzed Chemiluminescence from an Aryl Phosphate-Substituted Dioxetane," <u>Tetrahedron Letters 28</u>:1159-1163 (1987) [Exhibit 67];
- 68. Selinger, D.W., et al., "RNA expression analysis using a 30 base pair resolution *Excherichia coli* genome array," <u>Nature Biotech. 18</u>:1262-1268 (2000) [Exhibit 68];
- 69. Shibahara, S., et al., "Site-directed cleavage of RNA," <u>Nucl. Acids Res.</u> <u>15</u>:4403-4415 (1987) [Exhibit 69];
- 70. Singer, et al., U.S. Patent No. 6,323,337, filed May 12, 2000 [Exhibit 70];
- 71. Southwick, P.L., et al., "Cyanine dye labeling reagents carboxymethylindocyanine succinimidyl esters," <u>Cytometry 11</u>:418-430 (1990) [Exhibit 71];
- 72. Stavrianopolous, et al., U.S. Patent No. 4,868,103, filed February 19, 1986 [Exhibit 72];
- 73. Stavrianopolous, et al., U.S. Patent No. 4,952,685, filed April 28, 1987 [Exhibit 73];
- 74. Stavrianopolous, et al., U.S. Patent No. 4,994,373, filed July 20, 1989 [Exhibit 74];
- 75. Stavrianopolous, et al., U.S. Patent No. 5,013,831, filed May 8, 1990 [Exhibit 75];
- 76. Talaat, A.M., et al., "Genome-directed primers for selective labeling of bacterial transcripts for DNA microarray analysis," <u>Nature Biotech. 18</u>:679-682 (2000) [Exhibit 76];
- 77. Tao, et al., "Genomics: Expression Analysis of Escherichia coli Growing on Minimal and Rich Media," <u>J. Bact. 181</u>:6425-6490 (1999) [Exhibit 77];
- 78. Trulson, et al., U.S. Patent No. 5,578,832, filed September 2, 1994 [Exhibit 78];

Filed: January 23, 2004

Page 9 [Information Disclosure Statement - March 8, 2004]

- 79. Urdea, et al., U.S. Patent No. 5,132,204, filed May 31, 1989 [Exhibit 79];
- 80. Van Gelder, et al., U.S. Patent No. 5,891,636, filed September 3, 1997 [Exhibit 80];
- 81. Waggoner, et al., U.S. Patent No. 5,268,486, filed May 15, 1992 [Exhibit 81];
- 82. Waggoner, et al., U.S. Patent No. 5,627,027, filed September 22, 1992 [Exhibit 82];
- 83. Waggoner, et al., U.S. Patent No. 6,008,373, filed June 7, 1995 [Exhibit 83];
- 84. Walker, et al., U.S. Patent No. 5,270,184, filed November 19, 1991 [Exhibit 84];
- 85. Walker, et al., U.S. Patent No. 5,455,166, filed January 9, 1992 [Exhibit 85];
- 86. Ward, et al., U.S. Patent No. 4,711,955, filed May 23, 1983 [Exhibit 86];
- 87. Wieringa, J.H., et al., "Adamantylideneadamantane Peroxide. A Stable 1,2 Dioxetane," <u>Tetrahedron Letters 2:</u>169-172 (1972) [Exhibit 87];
- 88. Wittwer, et al., U.S. Patent No. 5,455,175, filed January 10, 1994 [Exhibit 88];
- 89. Wittwer, et al., U.S. Patent No. 6,174,670, filed June 4, 1997 [Exhibit 89];
- 90. Zhu, Z., et al., "Directly labeled DNA probes using fluorescent nucleotides with different length linkers," <u>Nucl. Acids. Res. 22</u>:3418-3422 (1994) [Exhibit 90];

The ninety (90) foregoing references (numbers 1-90) were cited in the specification of the instant application.

A completed Form PTO-1449 listing the 90 above-submitted documents is also attached hereto as Exhibit 91.

Filed: January 23, 2004

Page 10 [Information Disclosure Statement - March 8, 2004]

By this voluntary citation of art, Applicants and their attorney are requesting that the documents be made of record in the present application.

The above citation of documents is not a representation that these documents constitute a complete or exhaustive listing, nor that the above listing necessarily includes the closest or most relevant documents, nor are these documents necessarily a complete listing of all documents known to Applicants or their attorney. It is simply a voluntary citation of documents made in good faith, which is not intended to serve in any way as a substitute for the Examiner's own search.

In view of the general and specific features described and claimed in the present application, Applicants respectfully submit that the present invention is neither disclosed nor suggested by the documents referred to above and is thus patentably distinct thereover. Furthermore, Applicants do not believe, and do not submit, by the citation of these references, that these documents, either by themselves or in combination with other documents, render the invention prima facie obvious under the duty of disclosure rules.

Applicants respectfully request that the Examiner make the above-submitted documents of record in the instant application. Applicants further request that the Examiner consider these documents as any of them may relate to the instant application.

					V						Sheet		_ 7	
Form PTO-1	449 (J.S. E)epar	tmer	it of	Com	merc	е	Atty. Do	ocket No.	Seria	No. 10/	764,41	8
(REV. 8-83)	Pate	nt an	d Tra	adem	ark C	Office	•		EN2-01	(011)				
	RMAT													
,-					.0000	, ou.,	,		Applicar	nts: Ilan, et al				
									Filed: J	anuary 23, 2004	Grou	p: Not y	et knov	vn
		_					U.S.	PAT	ENT DOCUM	MENTS				
													FILIN	G
EXAMINER	-										:	6115	DATE	
INITIAL		DO	CUM	ENT	NUM	IRFR			DATE	NAME	CLASS	SUB CLASS	APPF PRIA	
		5	8	4	9	4	8	0	DATE	Cros, et al			FNIA	16
	 	4	8	9	4	3	2	5		Engelhardt, et a	i		<u> </u>	
		5	2	4	1	0	6	0		Engelhardt, et a			+	
	 	5	2	8	8	6	0	9		Engelhardt, et a			 	
		6	2	2	1	5	8	1		Engelhardt, et a			-	
	 	4	3	7	5	9	7	2		Forgione, et al		<u> </u>		
	<u> </u>	5	2	1	0	0	1	5		Gelfand, et al			-	
		ı	l	l										
	Γ —	·				FC	JKEI	SN PA	ATENT DOC	UNIENIS		1		
		DO	CUM	IENT	NUN	1BER			DATE	NAME	CLASS	SUB CLASS	TRAN LATIC YES	_
	wo	9	9	2	8	5	0	0	11/27/98	Lee, et al				
	EP	0	9	1	7	0	3	9	1/12/00	Rabbani, et	A1			
	İ	OTE	l IER C	l Docu	 JMFN	 JTS (Inclu	dina.	Author Title	al e, Date, Pertinent	· Pages [l
		Enzo	Bio	chem	, Ca	talog	Nos	. 427	22, 4723, 4	1724, New York,	NY	-10./		
	+									for sulfhydryl gro			0.0.40	
		(198		ai.,	Cyai	mie i	uye i	aveiii	ig reagents	tor suimyaryi gra	ups, <u>Cy</u>	tometry	<u>10</u> :3-10	
		Fuhr	op,	J.H.,	et al	., Ch	apte	r 19 i	n "Porphyrir	ns and Metallopo	rphyrins,	ed. Sm	ith, K.N	1.,
	+	Else	vier S	Scien	ce, N	lew '	York	(197	5)					
										ractions. I. Stabil plementary d(GGC				
		deox	<u>kyi</u> no	sine	and o	other	misi	matcl	ned bases,"	Nucl. Acids. Res	. 14:772	7-7736 (1	i (186)	'
		Kuh	lmanı	n, K.	F., e1	t al.,	"Syr	thesi	s, DNA-bind	ling and biologica	l activity	of a dou	ble	
	+	inter	rcalat	ting a	nalo	g of	ethid	ium t	promide," <u>N</u>	ucl. Acids. Res. 5	:2629-2	633 (197	8)	
EVARABLED		Laio	———	Orga	110111	ercur	iais i	n Org		esis," <u>Tetrahedror</u>	1 38:171	3-1/54 (1982)	
EXAMINER									DATE CON					
*EXAMINER line through	l: Initi citatio	al if o	itatio not in	on con	nside form	ered, ance	whe	ther	or not citation	on is in conforma Include copy of t	nce with	MPEP 60	9; Drav	~
communicat	ion to	appli	cant.								=			

F PTO 4	440 1				V				.		Sheet		f _ 7
Form PTO-14	449 (J.S. E)epar	rtmer	nt of	Com	merc	e	Atty. D	ocket No.	Seria	al No. 10	/764,418
(REV. 8-83)	Pate	nt an	d Tra	adem	ark C	Office	:			. (511)			
INFOR	RMAT	ION E	DISCL	osu	IRE C	TAT	ION						
	se sev												
									Applica	nts: llan, et al			
												_	_
									Filed:	January 23, 2004	4 Grou	p: Not	yet known
		_					U.S.	PATE	NT DOCU	MENTS			
		T					<u> </u>			W.C.IVIO		T	FILING
EVALUED													DATE IF
EXAMINER INITIAL			CUM	IENT	NUN	IRFR			DATE	NAME	CLASS	SUB CLASS	APPRO-
		6	3	3	8	9	5	4	DAIL	Gemen, B.			PRIATE
	 	5	6	4	6	2	6	4					
	<u> </u>	Ļ			L	ļ			<u> </u>	Glazer, et al			
		5	2	4	8	6	1	8		Haces, A.			
		5	7	3	0	8	4	9		Hamby, et al			
		4	7	0	7	4	5	4		Hendrix, JL			
		5	4	6	4	7	4	1		Hendrix, JL			
	-	5	9	9	4	0	5	6		Higuchi, RG			
 1	 	5	0	4	7	5	1	9		Hobbs, et al			·
		J	l	l	l	i FO)RFI(GN PA	TENT DOC			ı	
· · · · · · · · · · · · · · · · · · ·								3	TEIT DOC			T	
	1	İ											TRANS-
		DO	сим	ENT	NUM	BER			DATE	NAME	CLASS	SUB CLASS	<u>LATION</u> YES NO
<u> </u>		<u> </u>									CLASS		120 110
	EP	1	2	7	5	7	3	7	1/15/03	Rabbani, et al	A1		
	EP	1	3	4	4	8	3	5	11/17/03		A1		
	j	OTH	I IER (i Doci	JMEN	I ITS (l Inclu	I i Iding A	Author, Titl	al e, Date, Pertiner	l nt Pages	l Etc.)	1 1
		Lee,	L.G.	., et a	al., "I	DNA	sequ	Jencin	g with dye	-labeled terminat	ors and T	7 DNA p	olymerase:
		effe	ct of	dyes	and	dNT	Ps o	n inco	rporation o	of dye-terminator: 0:2471-2488 (19	s and pro	bability a	nalysis of
	\vdash	Liu,	H., e	et al.	, "PC	R am	plific	cation	usina den	kyinosine to repla	ace an en	tire codor	n and at
	<u> </u>	amb	iguo	us po	sitio	ns,"	Biote	chniq	<u>ues 16</u> :24-	26 (1994)			
										ency virus type 1			
		inco	storn rpora	ned (ated i	ו 4UJ into I	⊦ mo J1 er	nocy ìRN∆	TIC CE	us treated Virol 71.40	with multitargeti 079-4085 (1997)	ng HIV-1	antisense	sequences
												. Acids R	es.
	_	<u>22</u> :4	<u> 1039</u>	-404	3 (19	94)		_				-	
							ation	ns of u	ıniversal D	NA base analogu	ies," <u>Nucl</u>	. Acids R	es.
EXAMINER			/	<u>17</u>	, 120			T	DATE CON	ISIDERED			
*EXAMINER	: Initi	al if c	itatio	ວກ ດດ	nsida	ered	whe	ther o	r not citati	on is in conform	ance with	MPER	NO. Drove
*EXAMINER *EXAMINER line through communicati	citatio	Loal 22:4 Loal 29:2	kes, 1039 kes, 2437 citation	D., e ⁻ -404 D., " ⁻ -244 on con	t al., 3 (19 The a 7 (20	"5-N 994) applic 001) ered,	ation	ndole a	as an universal D DATE CON r not citati	ersal base analog	ue," <u>Nucl</u> les," <u>Nucl</u> ance with	. Acids R	es. 09; Draw

Form PTO-14	49 U.	S. D	epar	tmer	nt of	Com	merc	е		Pocket No. 1 (D11)	Sheet Seria	No. 10/	7 764,418		
(REV. 8-83)	Paten	t and	d Tra	adem	ark C	office	•			(611)					
INFOR															
(us	e seve	erai s	sneet	is it r	neces	ssary)		Applica	ants: Ilan, et al					
•															
									Filed: .	January 23, 2004	Grou	p: Not y	et known		
-							U.S.	PAT	ENT DOCU	MENTS					
XAMINER												SUB	FILING DATE IF APPRO-		
NITIAL			_	ENT			,		DATE	NAME	CLASS		PRIATE		
		6	2	2	8	5	7	8		Impraim, et al					
		5	5	5	4	5	1	6		Kacien, et al					
		5	9	4	8	6	4	8		Kahn, et al					
		5	9	4	5	2	8	3		Kwok, et al					
		5	9	4	5	5	2	6		Lee, et al					
	•	5	1	1	8	8	0	1		Lizardi, et al					
		5	1	3	0	2	3	8		Malek, et al	+				
		4	6	8	3	2	0	2		Mullis, et al		+	-		
	· · · · ·					FC	REI	SN P	ATENT DO	CUMENTS		J	<u> </u>		
													TRANS-		
		DOG	CUM	ENT	NHM	RFR			DATE	NAME		SUB CLASS	<u>LATION</u>		
									DATE	TAVIALE	CLASS	CLASS	YES NO		
		OTH	ER E	OCL	MEN	ITS (Inclu	ding	Author, Tit	le, Date, Pertinen from Reactions of	t Pages,	Etc.)	· · · · · · · · · · · · · · · · · · ·		
		Hydr	oger	Per	oxide	ai., and	Fluo	resce	ent Compou	unds," <u>J. Org. Ch</u>	em.33:25	i0-254 (1	mides with 968)		
		Moa	n, J.	, et a	al., "I	Porph	yrin	phot	osensitizati	on and photother	apy," Pho	tochem.	Photobio.		
				590 (r R			"Cv:	nine	dve labelin	g reagents contai	ining inet	nicovenet			
		Cyto	met	ry 10):11-	19 (1	989)	dye labelli i	ig reagents contai	ining isoti	llocyanat	e groups,		
		Muju	ımda	ır, R.	B., e	t al.,	"Cya	nine	dye labelin	g reagents: sulfoi	ndocyani	ne succin	imidyl		
									4:105-111 eoside-for u	(1993) ise at ambiguous	sites in D	NA prime	ers." Nature		
		<u> 369</u> :	492	<u>-493</u>	(199	94)									
		Окау (198	(2)	1, ⊓.,	ега	ı., "r	iign e	etticie	ency cionin	g of full length cC	λΝΑ," <u>Μο</u>	ı. Cell. Bi	<u>01. 2</u> :161		
XAMINER									DATE COM	VSIDERED	·				

Corre DTO 14	40 11	0 5			Y				- T =		Sheet		f _ 7		
Form PTO-14	49 U	.S. L)epar	tmer	nt of	Com	merc	е		ocket No.	Seria	I No. 10/	764,41	8	
(REV. 8-83)	Pater	nt an	d Tra	dem	ark ()ffice	1		ENZ-6	1 (D11)					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					J	,,,,,									
INFORI															
(us	e sev	erals	sheet	s if r	neces	sary)								
									Applica	nts: llan, et al					
									Filed: 、	January 23, 2004	4 Grou	p: Not y	et kno	wn	
L															
r	- ,	Г	_				U.S.	PAT	ENT DOCU	MENTS			T		
													FILIN		
EXAMINER												SUB	APP		
INITIAL		DO	CUM	ENT	NUN	1BER			DATE	NAME	CLASS	CLASS	PRIA		
		5	8	6	6	3	3	6		Nazarenko, et a	ıl				
		6	1	1	4	3	5	0		Randall, et al			 		
					<u> </u>			ļ							
		6	1	1	0	6	3	0		Reddy, et al					
		6	0	0	1	5	7	3		Roalent, C.					
		5	7	0	7	5	5	9		Schaap, et al			 		
		6	3	2	3	3	3	7		Singer, et al					
l		ľ	ı	l	ļ	l FC)RFI(I SN PA	 ATENT DOC	 NIMENTS	ı	1	1		
	FOREIGN PATENT DOCUMENTS														
									TRAN	S-					
		DO	CLINA	CNIT	N 11 1 1 A	DED			5.75	1,,,,,		SUB	LATIC	_	
]		DO	CUM	EIVI	NOW	BER			DATE	NAME	CLASS	CLASS	YES	NO	
														l .	
		OTH	IER D	OCL	IMEN	ITS (Inclu	ding	Author, Titl	e, Date, Pertinen	t Pages, I	tc.)			
		Riek	e, K.	D., "	ine i	prepa	ratio	n of	highly react	tive metals and the	ne develo	oment of	novel		
		Robi	ns. N	<u>Л.Л.</u>	et al	"N	, <u>Al</u>	c Aci	d Related (<u>33:52-60 (2000)</u> Compounds. 39. I	Efficient C	`onvorsio	o 6 E I		
		to 5	-Alky	nyl a	ind D	erive	d 5-	Subst	tituted Urac	il Bases and Nuc	leosides."	J. Ora. (Toro-i Chem.	ouo	
		<u>48</u> :1	854	<u>-186</u>	2 (19	983)									
		Scha	aap,	et al.	, "Cl	nemic	al ar	nd En	zymatic Tri	ggering of 1,2-Di	oxetanes.	1:Aryl E	sterase	-	
		Tetr	iiyze(ahed	ron I	milus ette	mine s 28	∙92F	-dab ce tro	om a Napht (1987)	hyl Acetate-Subs	tituted 1,	2-Dioxeta	ne,"		
										tic Triggering of	1.2-Dioxe	tanes 3	Δlkalin		
		Phos	sphat	ase-	Catal	yzed	Che	milun	ninescence	from an Aryl Pho	sphate-Si	ubstituted	יאות	`	
		Diox	etan	e," <u>T</u>	etral	<u>nedro</u>	n Let	tters	<u>28</u> :1159-1	163 (1987)					
		Selir	nger, geno	D.W me a	., et	al., " " Na	'RNA	expr	ession anal	ysis using a 30 b 2-1268 (2000)	ase pair r	esolution	Excher	richia	
		Shib	ahara							of RNA," <u>Nucl.</u>	Acids Res	<u>. 15</u> :440	3-4415		
EXAMINER		(198	37)		·				DATE CON						
		1 :-	• •												
*EXAMINER:	Initia	al if c	itatio	on co	nside	ered,	whe	ther o	or not citati	on is in conforma	ence with	MPEP 60	9; Drav	~	
communication	on to	appli	cant.		101111	ai iCE	ariu	HOL C	onsidered.	Include copy of	ınıs torm	with nex	Ţ		
		. •													

					9			•			Sheet	6 of	7	_
Form PTO-14	49 L	J.S. C	Depar	rtmer	nt of	Com	merc	е		ocket No.	Seria	No. 10/	764,41	8
(REV. 8-83)	Pate	nt an	d Tra	adem	ark C	Office	<u> </u>		ENZ-61	ו (נוט)				
INFORI														
(us	e sev	erai :	snee	is it i	neces	ssary	,		Applica	nts: Ilan, et al				4
									Applica	iits. iiaii, et ai				
									Filad	January 23, 2004	Cro	n. Net.		
									Tiled. 3	ianuary 23, 2004	+ Groc	ip: Not y	et knov	٧n
							U.S.	PAT	ENT DOCU	MENTS				
											T		FILII	VG
EXAMINER												CUD	1	EIF
INITIAL		DO	CUM	IENT	NUN	1BER			DATE	NAME	CLAS	S SUB	APP	
		4	8	6	8	1	0	3		Stavrianopolous	s,		 	112
			-	<u> </u>	<u> </u>	-	<u> </u>	 -		et al				
		4	9	5	2	6	8	5		Stavrianopolous et al	5,			
		4	9	9	4	3	7	3		Stavrianopolous	3,		+	
		<u> </u>	<u> </u>				<u> </u>			et al				
		5	0	1	3	8	3	1		Stavrianopolous	s,			
		5	5	7	8	8	3	2		et al Trulson, et al		_		
		5	1	3	2	2	0	4		Urdea, et al				
		5	8 .	9	1	6	3	6		Van Gelder, et	al			
		5	2	6	8	4	8	6		Waggoner, et a	1			
·		ı	l	I	1	l F(I DREIC	I GN PA	I ATENT DOC	UMENTS	. !	I	1	
													TRAN	
		DO	CUM	ENT	NUM	BER			DATE	NAME	CLASS	SUB CLASS	LATIO YES	NO NO
											CLASS			
														-
			·											
ı 1 		OTH	I IER (ocu	I JMEN	I ITS (ı İnclu	I dina	। Author, Titl	l e, Date, Pertinen	l t Pages ∃	l Etc.)		
		Sou	thwi	ck, P	.L., e	t al.,	"Cy	anine	dye labelin	g reagents - ca	rboxymet	hylindocy	anine	
		succ	inim	idyl e	ster	s," <u>C</u>	ytom	etry	<u>11:418-430</u>	(1990)	 			
		for [at, A DNA	ww., micro	et al Sarra	., ປ v ana	enon alvsis	ne-dir " Na	ected prime iture Bioteci	ers for selective I h. 18:679-682 (2	abeling of	t bacterial	transci	ripts
		Tao,	, et a	l., "C	Seno	nics	Ехр	ressio	n Analysis	of Escherichia co	oli Growin	ng on Mini	mal and	
		Rich	Med	dia,"	<u>J. Ba</u>	ct. 1	<u>81</u> :6	425-	6490 (1999	9)				
		Tetr	<u>ahed</u>	<u>ron L</u>	<u>etter</u>	s 2:	169-1	172 (1972)	nantane Peroxide				
		Zhu,	Z.,	et al.	, "Di	rectl	y lab	eled [ONA probes	using fluorescer	nt nucleot	ides with	differe	nt
EXAMINER		leng	th lin	kers.	," <u>Nu</u>	cl. A	cids.	Res.		422 (1994)				
									DATE CON					
*EXAMINER: line through c	Initia itatio	al if c on if r	itatio not ir	on con	nside form	ered, ance	whe and	ther o	or not citati onsidered.	on is in conformation include copy of	ance with	MPEP 60	9; Drav	~
communication	on to	appli	cant.	•							2			

Form PTO-14 (REV. 8-83)								е		Oocket No. 1 (D11)	Se	rial N	No. 10/	764,41	18		
INFOR	MATIO	ON D	ISCL	.osu	RE C	ITAT	ION										
(us	e sev	eral s	sheet -	ts if r	neces	sary)		Applica	ants: llan, et al		<u></u>					
									Filed:	January 23, 2004	Gr	oup:	Not y	et kno	wn		
							U.S.	PAT	ENT DOCU	MENTS							
EXAMINER		DO	CUM	IENIT	NUM	1RER			DATE	NAME	CL	ASS	SUB CLASS	DA API	NG TE IF PRO-		
		5	6	2	7	0	2	7	DATE	Waggoner, et a				PRI	ATE		
· · · · · ·		6	0	0	8	3	7	3		Waggoner, et a	i		 	+			
		5	2	7	0	1	8	4		Walker, et al				+			
		5	4	5	5	1	6	6		Walker, et al				+-			
		4	7	1	1	9	5	5		Ward, et al							
		5	4	5	5	1	7	5		Wittwer, et al							
		6	1	7	4	6	7	0		Wittwer, et al							
															_		
I	 1					FC	REIC	SN P	ATENT DO	CUMENTS				· ·			
														TRAN			
		DO	CUM	ENT	NUM	BER			DATE	NAME	CLASS		SUB CLASS	<u>LATIO</u> YES	<u>ИС</u> ОИ		
		0.71															
		UIH	IEK L		INIEN	115 (inclu	aing	Author, Lit	le, Date, Pertinen	t Pages	, Etc	o.)				
		 ,				, .	-										
				-											-		
P.V. 4 P. 112																	
EXAMINER									DATE CO	NSIDERED							